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20. A method according to claim 14, and also comprising the additional steps of providing a circulator and a reflecting surface, and connecting said input fiber and said output fiber to two ports of said circulator, and said substrate and associated reflecting surface to a third port of said circulator.

21. A method according to claim 14, and wherein said applied signal is adjusted according to the spectral profile of said output optical signal, such that said optical device modifies the spectral transmission profile of said optical path dynamically.

22. A method according to claim 21 and also comprising the step of channel monitoring said output signal, and wherein said applied signal is derived from said channel monitoring.

23. A method according to claim 21, and wherein said step of adjusting said applied signal compensates for changes in the spectral profile of said input signal dynamically.

24. A method according to claim 21, and also comprising the step of determining the Fourier components of the spectral profile of said output optical signal, and wherein said applied signal is adjusted according to the effective wavelength and amplitude of those of the Fourier components of the spectral profile of said output optical signal, which are associated with said at least one stepped area of said substrate.

25. A method of changing the spectral profile of an input optical signal to a predetermined profile, comprising the steps of:

determining the effective wavelengths and amplitudes of a predetermined number of Fourier components of the spectral profile of said input optical signal;

determining the effective wavelengths and amplitudes of said predetermined number of equivalent Fourier components of said predetermined spectral profile;

calculating a transfer function according to the ratio of each of said predetermined number of Fourier components of the spectral profile of said input optical signal to each of said predetermined number of Fourier components of said predetermined profile;

providing a substrate having a plurality of stepped areas, one stepped area for each determined Fourier component; and

passing said input optical signal through said substrate;

wherein the height of each of said stepped areas is predetermined according to the wavelength of said transfer function associated with its stepped area, and the area of each of said stepped areas is predetermined according to the amplitude of said transfer function associated with its stepped area.

26. The method of claim 25 and also comprising the step of providing a variable phase shifter disposed across the cross section of at least one of said stepped areas, and wherein adjustment of said phase shifter varies the wavelength of that component of said transfer function associated with said stepped area.

27. The method of claim 25 and wherein said variable phase shifter is pixelated, and wherein the generation of differential phase shifts by said pixels varies the amplitude of that component of said transfer function associated with said stepped area.